1: Lorimer T-3 (1920-4; 1934-8) 1938 AV7 Burusho AV7

these narrow planks placed side by side and pierced by horizontal holes through which two parallel rods are threaded ; the hinge is a longer piece of wood pointed at both ends and rotating into holes in threshold and lintel ; while the whole is secured by an ingenious wooden lock. Most villages, however, now possess a carpenter or two, trained in the P.W.D. workshop at Gilgit and armed with plane and saw, who can produce more Europeanized doors and cupboards, to the greater comfort of their owners and the selfish regret of the anthropologist. The old, home-made door is still in use for barn and byre.

Every peasant family is almost entirely self-supporting and independent, eating the produce of its own laboriously and beautifully terraced fields (PLATE I), wearing the woollen cloaks and caps spun and woven from the wool of its own sheep, and booted from the skin of its own beasts. The only foreign garments worn are the cotton shirts and trousers of comparatively recent introduction, now considered indispensable by both sexes, and the merry little cotton caps, plain or silk-embroidered, which have replaced the heavy woollen salvation-army bonnet of the women. Butter is made and water carried in skins ; grain and flour are carried in skin-bags or sacks and stored in skin-sacks or wooden bins. Rugs, saddlebags and ropes are woven of goat's hair.

In a country where no unirrigated tree can grow, timber is very scarce. An old apricot or appletree is sometimes available, or the root of an old vine, otherwise the only general timber is the poplar, grown primarily for poles and rafters, and the willow, absolutely essential for baskets (PLATE II), a dozen varieties of which are needed for carrying apricots, manure, dry leaves, straw etc., and for storing potatoes and dried fruit.

The soil of Hunza is unimaginably poor, consisting in fact of little but powdered-up mountain side. The scarcity of water means also the non-existence of pasture, and the few animals that can be fed eke out a spartan existence on the scraps of grass growing on the rare semi-irrigated strips of hillside or beside the water-channels, and on such weeds amongst the growing crops as are not earmarked for human consumption or remain after the crops have been reaped. This scanty provision is supplemented by the autumn harvest of dry leaves (not one of which lies on the ground ungarnered), the straw and stubble, and occasionally a small quantity of dried grass. Only a few families command enough land and water to grow a little lucerne for fodder. The most livestock that the average household of 10 to 20 persons

ANTIQUITY

233 The most livestock that the average household of 10 to 20 persons
241 hopes to possess is a tiny flock of 20 to 25 sheep, goats and cows. In
237 these circumstances manure is more precious than gold, and the small
592 children who conduct a cow to pasture carry a shoulder basket in which every ounce of the day's output is scrupulously collected and brought home.

233 When the snow retreats on the upper mountains a few patches of green are left here and there, and the more athletic beasts are taken up by young men who live in shelters with their charges, collect the manure, convert the milk into butter and bring these home with the animals when the snows claim their own again. These patches of high pasture, several thousand feet above the villages, are all too few and can only be reached by serious feats of mountaineering. Through field-glasses we could see the grazing animals clinging—by their eyebrows as it seemed—to their precipitous 'summer pastures', but it was impossible to ride up even on a yak, and at our age impossible to climb on foot for a nearer view.

As soon as the trees put out their leaves in spring, each 'donkey tree' (*i.e.*, non-fruit-bearing) is stripped of every scrap of spare foliage to feed the half-starved beasts. This luxury diet has to be very carefully administered lest the animals should perish of its unaccustomed succulence.

243 The major crops grown by the Hunza people for their own use are
[177] wheat, barley, several kinds of millet, sweet and bitter buckwheat, nowadays also the highly-valued potato (introduced by the British in 1892) and small quantities of various pulses. Barley must have been the original staple crop, for all the traditional festivals, the Seed-sowing of early spring, the First Reaping of early summer and the Harvest
[242] Home, relate to barley alone. The peasant is wise about rotation of crops and the various types of wheat, millet, etc., which thrive best in given conditions. Wheaten bread is much preferred to any other, but barley remains the larger crop because spring-sown barley ripens three or four weeks before even the winter-sown wheat, and the vacant fields can be resown with millet; whereas after the wheat only buckwheat can hope to ripen before winter. Bitter buckwheat is frankly detested, but it is hardier than the sweet and can better withstand an attack of early frost, so a certain amount of it is always sown as an insurance.

So poor is the soil, so scanty the manure, that in the newer villages like Aliabad, the average return is only sevenfold and even the storeyed fields of Baltit, which have been tilled in the sweat of man and woman's brow for at least 600 years and probably for twice or thrice as long, yield

FIRST WALKS ABROAD

There were two dear little girls, Shamáli and 524
Banu, about six and four, who played with me and let me 177
tickle them with straws and play "One little pig went to market . . ." with their dusty little toes. This game proved such a success that I roughly translated it into "One little sheep went to drink. . . ." They would never have seen a pig, and if they had they *ought* to think it unclean, so I thought a lamb was safer. My first version gave one little lamb bread to eat, "bread" being a general word for "food." This caused great laughter: "Lambs wouldn't like bread, Mother dear." "Well, what do you think they'd like best?" "Oh, grass or leaves." "One little lamb had grass to eat and one little lamb had none." Thus amended, my little rhyme was approved, and other youngsters turned up to play "little lambs" till the game grew so popular that whenever I sat down on anyone's threshing-floor baby feet would be stretched out towards me: "One little lamb, Mother . . ." till I got quite tired of ". . . baa, baa, baa, all the way home," but it never palled on them. Centuries hence, when we shall have long been sleeping in the Garden of Rest at Golders Green, some anthropologist will come along and wonder what process of "diffusion" took "one little pig" to Hunza, or whether Hunza spontaneously generated the jingle for itself.

My pencil and little notebook were a great source of amuse- 124
ment, and the youngsters would crowd round: "Have you put 476
my name in? I'm Shamúli." "So you are; but whose Shamúli are you? I've got two Shamúlis already. Who's your Daddy? How many brothers have you got; how many sisters, are they bigger or smaller, what are *their* names? And which house is yours?" Thus gradually I got to know most of our immediate neighbours, but it was no easy matter to sort the families out, for groups would gather on each other's threshing-floors, and anyone whose own immediate work was done would join in to help the workers. I finally gave numbers of my own to all the nearest houses, and tried bit by bit to plot out the various relationships.

Meantime the threshing went steadily on, and I noticed that 243
the driver carried always a flat bowl shoulder high in her left 237
hand. "Now what's that for?" asked I. "Why, that's the dung-

dish," and right enough the driver quickly anticipated her cows' needs, and when her dish was full went off and emptied it on a little heap of manure. You thus keep your grain uncontaminated and salvage your manure—most priceless of products. If the driver lapses into a daydream a warning yell from the onlookers would call her attention back in time. I don't know whether the dung-dish is in use elsewhere, but it is at any rate one more symbol of Hunza fastidiousness. You *plough* with oxen, but you thresh with *cows*, whose slighter needs can also be forestalled. When all the wheat is thoroughly trampled the men take great wooden five-pronged forks, most gracefully shaped things (made, of course, at home), and towards evening when there comes a little breeze they toss the broken wheat up into the air to winnow it. The broken straw is blown to one side while the heavier grain falls into a heap. Then they take wooden, home-made spades and toss the grain again to get rid of any remaining straw. These processes take many hours' hard work, and will not be completed in one day; but they have no rain to fear and can leave their stacks of straw and heaps of grain from one day till the next. They leave their threshing-floors unguarded when they go home at night; pilfering a neighbour's food is simply "not done."

When the winnowing is over the women take a big sieve, made of thin strips of leather criss-crossed over a round frame. This is coarse enough to let the grain through but to catch any scraps of straw. When this first sieving is over, they take a finer sieve (with, of course, a totally different name) which keeps the grain and lets the dust fall through. But even then they don't consider the job quite finished. The women turn the pile over with their hands, carefully picking out any sliver of straw that may have previously escaped. When at last it is ready, the grain is filled into large skin sacks, which will take up to 160 lb. or so, and the men carry these off to the storeroom while the broken straw is loaded into huge open-ribbed baskets that can also be carried only by a man. The straw is taken up on to the flat roof and poured down through a central hole into the straw shed.

There is no hard and fast rule about what is woman's work

524 apexes (apices? no, no!) are the "squares" and any man can move and take in any direction. It requires quite as much skill and provides quite as much fun as draughts played in our way. There are half a dozen other games of the sort, roughly variants of "marbles," all played with pebbles and governed by complicated rules which we only partially mastered.

857 We used to watch Nimo, of No. 7, a jolly, bright-eyed mite of eight or nine, pass our window every morning about half-past six, sturdily carrying an empty shoulder basket as she herded her two or three small cows off to the *toq*; sometimes she was taking charge of a small brother or sister as well. Just before nightfall, after a whole summer day on the mountain side, she would return, driving her animals and stooping
• 237 slightly under her load. One evening in the very early days I
857 stopped her to ask *whose* Nimo she was (their names duplicate
241 each other like our Joans, Anns, and Dorises), and "What have you got in your basket there?" With courteous surprise at being asked a question to which there could be only one answer: "Why, to-day's cow-dung." Sure enough I soon discovered that every little cowherd conscientiously gathers every scrap of the cow's daily output and brings it home to the manure store in the barn—there are no untidy outdoor middens to spoil the landscape or defile the air.

Another day we met Khano of No. 3, one of our first boy-friends, breathlessly chivvying a cow uphill to a spot where he had safely dumped his baby sister Guláb, in charge of his basket. "Hullo, did she run away from you?" "She did, the villain, but I've got her back, and look, Mother, I've lost nothing," he said, as he proudly displayed the contents of his looped-up cloak. He threw his treasure into the basket and resumed his attentions to Guláb, while the cow resigned herself to orthodox grazing. He was playing with the little girl, patiently coaxing her to totter a step or two and flop into his waiting arms, and throwing up little stones for her to catch.

857 The tenderness of the bigger children to the babies is a
[593] beautiful thing to watch. I never saw boy or girl out of temper with a baby brother, sister, or cousin, or resentful of having one in charge. When the bigger ones are busy in some momen-

2: Lorimer T-3 (1920-4; 1934-5) 1939 AV7 Burusho AV7

recently burnt a hole in one of his pockets and a cigarette mouthpiece was sticking out (this was the first I had heard of the catastrophe). "Shame, shame! Mother dear!" the boys shrieked with delight. "Why won't you mend it for him?" and the imp Khano officiously produced a needle from his woollen cap and offered it me with a bow worthy of Sir Walter Raleigh.

It was one of the most amusing of many delightful afternoons I remember with our boy companions, if not the entirely quiet and restful one we had set out to seek. Khano asked me to take a photograph of him. "But, my dear boy, I took a beauty of you the other day with your shoulder basket on your back." (His mother had been delighted with this.) "Yes, I know, but a basket is disgusting. I'd like one of just me." I could not resist the plea, and took a snapshot of him seated on a boulder, his merry, handsome face a-grin and a magnificent background of mighty mountains and eternal snow. Alas and alas! amidst our merriment I was careless and slightly shook the camera, and that photographic masterpiece was one of my most bitterly regretted duds. I took him many times again, but never hit off the "just him" that I missed that afternoon.

237 I have mentioned more than once the utter pricelessness of manure in Hunza. Every child out in charge of even only one cow or calf carries a shoulder basket on its back and scrupulously collects every ounce as it emerges. This keeps fields and lanes, courtyards and mountain sides as clean as a drawing-room floor (if only people would do this sort of thing at home!). As we were making our way home Khano spotted a few scraps that some careless herd had left behind, and hastily gathered them into the skirt of his *choga*. "Ah, ha," said I, "if you'd had your 'disgusting' basket with you, you would not have had to soil your *choga*." "That's no matter," he grinned as he carried his treasure trove along. Presently he saw a nice little hidey-hole under a rock and threw his find in there: "I'll come back and fetch it to-morrow."

If you have a decent cow she will yield you a basketful in two days, and it takes sixty baskets to manure a fair-sized field properly for the winter wheat. Very few people have more

than two cows. . . . You can work it out yourself. I'd like to give our litter louts a few years' training in Hunza.

Salt is a crying need in Hunza, and while down-country rock-salt can be obtained on payment from Gilgit, few families can afford to buy. Hence in the relatively idle days of early winter you will see parties of women and girls and boys scouring the mountain side high up, and tasting as they go, till they find a patch of ground that seems to have a trace of saltiness in it. They scoop up the full of their baskets and carry this earth home. When salt is wanted they mount a conical basket filled with the saline earth over some receiving vessel. By pouring water through, they get a discoloured fluid, containing heaven alone knows what (probably a minimum of sodium chloride), which they pour straight into the vegetable pot.

Another job which is kept for winter days is the making of new fields. It is all too true that the Hunzukuts have not enough water to serve their existing fields. But there are optimists who cannot resist the attraction of making a new field wherever they see a patch of ground that might with luck be irrigated in a good year. It's a serious business tackling a rocky bit of mountain side. You roughly plan your field and then start hacking out a great triangular gash at the upper side. It is full of stones and boulders which have to be removed; the smaller ones are set aside for the revetting walls; the larger ones are laboriously broken up with sledge-hammers (or blasted if you can get hold of a little gunpowder); the stony earth is carefully sifted into separate piles of varying degrees of fineness. Then the lower supporting wall is built to the level required, stones are thrown in for a foundation, next the coarser earth, and the surface is dressed with the finer. Field-making is the only occasion on which a barrow of any kind is of use. These barrows, of which in our whole time we only saw four, are the only wheeled vehicles known in Hunza. Whether the Hunzukuts invented them themselves or whether someone once saw a wheelbarrow in use elsewhere and imported the idea, who shall say? Anyhow, the Hunza wheelbarrow is a delightful affair. A sort of rude ladder with four or five rungs is made. A thick section of a tree trunk about

BARLEY SOWING AND "STARVATION SPRINGTIME"

God, the Merciful, the Compassionate—then they let the blood drain out, washed the neck carefully, and got busy with the skinning. Kalbi is a clever, neat-fingered fellow, as indeed all Hunzukuts seem to be, and in ten minutes had coaxed the skin off whole (without slitting it down the tummy) as easily as you peel off a pair of silk stockings. There were only the holes at the neck and at the four "elbows" and a little slit at the tail, so that with a stitch at the tail and four ties at the legs the skin would serve as a water bucket or a bag for flour.

He then hung up the carcase and cleaned it—a wonderfully unmessy business—while we noted down all the words for its various innards. It would have been much more instructive and enlightening if either of us had ever seen a sheep killed at home or had known the English words for all the curious things it has inside it. There was not, even round the kidneys, one ounce of fat.

As usual out here, you do not pay a person in cash for performing a service of this kind; there is some recognized perquisite. In this case Kalbi considered that he would be handsomely remunerated if he might have the guts. We did not covet them ourselves, and gladly acquiesced. They are much valued. They will give you strings for your zither (many people, including Kalbi, make beautiful zithers for themselves), and for your bow; they serve as thread to sew your long boots and your skin sack, and you put them to a hundred other uses. Others of our retainers laid claim to the wool, the skin, and various other items. Later Kalbi gave us a demonstration of skin-curing and -kneading.

The long native boots are extremely comfortable-looking, like long-legged moccasins, and their construction is an elaborate art. Ibex skins are preferred, but ibex have nearly been killed off and other leather has to be substituted. The soles may be made of cow-hide. Boots are precious things, so however cold it is you take them off when you come to a very rough piece of ground or want to walk through water. At best the unlined boot is not over-warm, and really luxurious people wear woollen socks or stockings inside if they have them. The women can knit excellently well, but it is very rare for anyone

St Lorimer L-S (1928-4; 1934-5) 1935 AV7 Burusho AV7

241 brought together, the following are the principal crops grown in Hunza and Nagir: wheat, barley, two or three kinds of millet, buckwheat, broad beans, peas and various pulses, lucerne (yielding two crops) for fodder. Maize and rice are not grown at these levels[1]. Lucerne is often grown on the sloping unterraced hillside where water is insufficient for crops. Fruit is also an important item of cultivation. The apricot is universal, and fresh and dry the fruit is a staple food. Besides its kernels are collected and eaten, or crushed for their oil. Apples, peaches, cherries, cherry-plums and grapes are also extensively grown, but do not appear to be dried, though apples and grapes are stored in straw for some months. Pears, pomegranates and walnuts are cultivated in places. The mulberry is eaten fresh and is also dried and preserved. Poplars and willows are grown for their timber, and in the lower tracts the chenar.

233 Agricultural crops and fruit would not however provide a com-
237 plete subsistence. Goats, sheep and a small type of cow supply the necessary milk and fat products, particularly ghee, also hair for ropes and coarse cloth, wool for clothing, skins and hides for containing vessels, foot-wear and thongs. These cattle are kept in the villages during the cool and cold weather, when they are fed on such scanty natural grazing as is to be found, agricultural waste and dried leaves, and pay their way by providing milk and manure. During the hot months they are sent up in charge of herds to the few summer grazing-grounds (tör, pl. törming; ter, termiŋ), which exist in the higher
234 parts of some of the nullahs. There their milk is collected and converted into forms in which it will keep: ghee, dried buttermilk etc.

361 [1] I.e. from about 7000′ upwards. Chhalt, the lowest village in the country,
133 stands at 6560′. Mäyün and Hindi are probably about 7000′ and Alïabäd about 7500′. Ralüit is 8000′ and Nagir 7550′. Miagär, the highest place at which the Burusho have been induced to live, is 10.158′. It is said that the Burusho women refuse to go where the apricot will not ripen, and there are few Burusho settled above 8000′. In Chupürsan and Shimshäl the Wakhis are found up to about 11.000′, which is probably the extreme limit at which barley will grow in this region. In recent years a little maize has been grown in Mäyün, Murtazäbäd and Ganish.

bim, i·ser gi·mo. Giyaser Šon Gu·ker di·n i·se bu·nulo dam ne gili mud·elimi.

Hin Dal Kan yakalater ga·rtsumo. Ele han bu·nan bim. I·ser gi·mo. Eler ni·min dam ne gi·li mudalimi. Tail o·tume u· talo muyu·gutsants bu·ndo bu·nd o.ulo gi·li ud·elimi.

Da u·ni ti·ta motuman. Dunutsun Hindi kane čar sivulo, sivulun la·tster dum u.isuman. Tele gi·li mod·elimi. Mod·elaser esumo: "Ja besan šičam?" Šon Gukute mo·simi: "Turuna a·lta tai·r guyam (or, gu·čam). I·tse multan mi·ne. Da her den gor du·sen. Turuna a·lta tai·r ay o·nanuman ke talo ku·li gu·čan, ama u·nate gute bap o·sam, bešal mi ho·lgute amuler niman ke miyar mane. Ho turuna a·ltatsatsum talo ne tai·r gu·čan."

Numo·sun i·se do·mulo čumare gi·li dam ne gi·li mod·elimi. Da i·ne gili modalumtsum her den turuna a·lta ya talo tai·r nutsun tobak ga·tare nuka ha ha e·tume nun i·se gi·li iwere tai·r du·sune

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776 1 *ser gimo . . . gili mudalimi* — Such beings as bilases have the power of hastily entering into boulders and in the normal course could no doubt come out again, but if an iron peg is driven into the boulder and a suitable spell employed they can be kept shut up for at any rate a long period.

000 Dadi's eventual escape is said to have been predicted by Shon Gukur: *omelé yaserner Dadi dersi* 'when my jaw-bone has rotted Dadi will come out'. But the jaw-bone is a very durable article. Cp. also the tale of *Qarq Jahan*, p. 202 l. 1.

412 237 789 In this and other stories iron evidently retains its magical qualities, which is not surprising as it was comparatively rare and precious in Hunza till quite recently. A couple of generations ago the important Baltit 'Alishāh irrigation channel was dug with iron horns used as picks.

880 2 *gili mudalimi* — I don't think this is to be taken as meaning that the peg was visibly driven into her. She was imprisoned by simply driving the peg into the stone.

3 *bu·nulo bu·nulo.ulo* — the plural is surprising, but the meaning is obvious.

4 *dum u.isuman* — from *d°-ase* | *d°-u.a* 'to take out extract'. Here glossed "made her climb" which suggests a point of contact with the intransitive *dusase* cp. § 308.

mudalimi — from here on the prefix *mo-* replaces the previous *mu-*. As the text was recorded at one sitting there was probably an actual difference in pronunciation by the narrator, not merely a variation in my hearing. So we have *°-adalas* being substituted for *°-dalas*. Cp. §§ 242—243.

6 *guyam* — "I have given you" the anticipatory Perf.

! [Errata: for du·šo read du·šo, cf p. 419, ult. 116 — Analyst.]

122 or cares in regard to Mr. Brunton's condition. The doc-
[758] tor will attend to his duties at Aliabad and look after the hospital there . . . but he only has one or two patients and he will be back and forth from the hospital to the palace. Therefore he will be in constant touch with your friend."

"No man could do more," I assured the Mir. "I don't know how we can ever thank you enough."

"Don't mention it," he said. "You have been very kind, too."

"Now is there anything that you would like me to get for you while you're here? I wish you would tell me because some things may take a few days to procure or prepare and I would like to have them ready for you."

[124] "I'll tell you what I would like and you tell me what you would like me to send you from Canada—and no holds barred." I said to him.

"Fair enough! We'll tell each other frankly what we want."

"Agreed," I joyfuly replied.

126 I always carry a notebook with me. It's a small folding affair made of leatherette or something, that has room for 3 or 4 ball point pens and a pad inside. I was making notes as well as marking down the things the Mir expressed interest in when I spoke of the conveniences available in America. I intended to send these to him anyway.

I had seen quite a few little items around Hunza that I would have liked to have . . . for instance, a Hunzan hat, a cane made in Hunza, a pair of Hunzan boots. The boots are most unusual, being something like the mukluks used in the north by the Eskimos, except that these are made in a simpler manner. They are somewhat like riding boots in shape except they are

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7:Tobe C,T-3 (1959)1960 AV7 Burusho AV7

made entirely of soft pliable leather, the lower part, including the soles, from yak hide and the upper part from cow or ibex hide.

I wanted to learn as much as possible about the good people of Hunza. Therefore I was interested in their crafts and craftsmanship.

All of the cloth used in making the garments the people wear and the special Hunzan hats are woven on looms that have been in use for hundreds of years. They weave 3 distinct types of material. It takes about 3 days to weave a length of approximately 15 yards of the best cloth, which is hardly sufficient to make a man's and a woman's "choga." The woman's requires 7 yards and the man's takes 9 yards. They trade commodities in exchange for the weaving. Then, during the winter, the men of the households cut and stitch the garments into durable, warm clothing.

The village blacksmith is also the music maker. Somehow, to me, that seems most appropriate for the clang of the hammer on the anvil rings a true music. These blacksmiths and musicians live in a section entirely of their own and they seem to keep mostly to themselves. It seems that all of the blacksmith-musicians of Hunza belong to a tribe known as the Bericho.

These people were sent to Hunza long, long ago by the Prince of Baltistan who was repaying a favor rendered him by the Mir of Hunza. These people have retained their independence and identity and do not generally take part in Hunzan activities. They even speak a language of their own known as Dumaki. This is also referred to as the speech of the Doma, or Bericho, of Hunza.

These people dwell in a quaint village or a community entirely of their own located just below Baltit. The history, the behavior and the manners and occupa-

000 needed animals in the world.

231 It is clearly and distinctly established that Tibet, for example, could never exist and people could never live in that part of the world if it weren't for the yaks and yaks are native only to that part of the world —yes, wild ones, I mean. That's where they were originally found and tamed. They still roam wild on some of the higher inaccessible elevations and plateaus in that part of the globe.

No one will attempt to deny that our cow is a most useful and practically essential animal. It gives milk from which we make butter, cheese and cream. We use the carcass for meat and the hide for shoes, baseballs and many other articles but, to the best of my knowledge and belief, the cow as it is today actually couldn't look after herself in the northern latitudes and pasture food must be provided.

[492] Well, the yak does everything a cow does. Besides that, it is one of the finest beasts of burden. Then, too, it is the surest-footed animal to be found anywhere. It can, and often does, forage for its own food. It can live off practically nothing. It is suspected that it can find sustenance in a bit of grass or roots or even a bit of coarse, uninviting (to any other animal) herbage.

[492] [241] Like our cow, it takes to domestication readily. Both the Tibetans and the Hunzans use them to work their fields and flail their wheat, barley and other grains.

231 ● 237 [283] From the wool on its back, belly and head comes the toughest of woven fabrics, from which is made the sturdiest of clothes for the people and tents for their homes. Wherever you see rope in Hunza, you can be sure that it was made from braided or woven yak hair.

[291] [415] [501] The hide is used for most everything . . . boots and shoes, of course, and water containers and skin boats, which are the means and mode of transportation across and up and down the dangerous rivers

and up and down the dangerous rivers. Yes, even the yak bones and horns are never wasted. Picks are fashioned from them. They even find their way into the walls of the homes of the people of Hunza, for they are lighter than stones.

Still I haven't yet mentioned what is generally accepted as the yak's most important contribution to the lives of the people in the highest mountain ranges in the world . . . and that is from the little green herbage they get, they give a good quantity of rich milk, from which is made the famous yak butter. Then last and perhaps even most important, it is butchered for its good quality, health-sustaining meat.

Even the yak tails are useful . . . as brooms or dusters . . . and many are shipped to the Western world and used as Santa Claus beards. And they do make the best Santa Claus beards of all. I know—I have a couple!

Now after you have had a chance to read these qualifications, perhaps you, too, will share my admiration and appreciation of the world's most useful animal.

I was up bright and early the morning I was to go to meet the yaks. Yes, it was just 6 o'clock when I was walking down the enclosed staircase towards the Mir's palace—leaving Cecil asleep, as he still had to remain in bed as the doctor had advised.

I met Jahangir coming from the other guest house and he joined me. We had agreed the previous night to be up at 6 but I never expected that it would work out right on the beam, as it happened in this instance.

So down we went along the stone staircases from one garden level to another until we reached the Mir's palace and then we began to climb up the long wooden staircase again.

As usual, the Mir was there to welcome us, along

shoes and these were similar to the general type of shoes that are worn in the West, except they didn't lace up in the front, but folded over and your toes stuck out. This type of shoe could be purchased in any of the shops throughout Pakistan and India and even the small town bazaars offered these shoes for sale. It was a sort of heavy-soled sandal, although the tops did have a little more leather and it wasn't quite as open as an ordinary sandal. These shoes are called "chaplis" and are best described by saying they are heavy-soled, sandal-type shoes worn chiefly by the people who live in or near the rugged mountain areas. 291

Another type of shoe that was worn (or should I say, foot covering) was the actual native type. They were made of soft leather. To me it felt very much like chamois or suede, but I know from questioning that it was made from ibex, sheep, cow or yak hide. The skins of any of these animals were used for making these shoes as well as other commodities. The soles, too, were soft but of a little heavier consistency than the uppers. They usually reached to about the knee and they were tied with a piece of string, usually around the ankle. [237]

Occasionally I saw another type of foot covering and this was as old as time itself and consisted of rags wound around the soles of the feet and the ankles. I'm sure back before man learned to spin and weave, he used leaves and bark on the soles of his feet, as protection against the rough terrain and rain, snow and sleet.

I had already learned the reason for the open-toed affair. The fact that it allowed air to circulate around the foot is good enough reason in itself, but in the event of a pebble or a small stone becoming lodged in the boot, it could be shaken free without stopping and unlacing the boot and removing the stone. With the

134 so sterile that Hunzas have told me, "If
311 you irrigate new land, you must eat for five years somewhere else."

24/ HUNZAS are skillful at building a
134 limited fertility into their sterile
[23] material, given enough time. All sheep manure is carefully saved, and the fields are fertilized with it four times during each growing season. Frequent irrigation works with summer warmth and mountain ozone to decompose the manure rapidly. The growing plants thus have a few weeks of available food after each fertilization, before drainage again removes the plant food. Hunza farming is actually hydroponic gardening, with the soil functioning merely to anchor the plants.

Plainly, the plants will receive enough of only those foods that occur abundantly in sheep manure. Nitrates, phosphates, and probably calcium are deficient. Yields of wheat and alfalfa are notably lower per acre than are yields from better-fertilized American acres. Apricot trees generally have reddish leaves at the growing tips, a sure sign of soil deficiencies.

433 Even the most painstaking hydro-
241 ponic gardening cannot compensate
237 for deficiencies in the food chemistry. Moreover, their system makes Hunza one of the few countries where an agrarian economy is absolutely dependent upon the pastoral economy.
[233] Even in the high mountain summer pastures, the sheep are carefuly herded into small cotes in order to preserve each night's droppings. Every few days a man climbs down the steep trail with a load of manure on his back. Effectively, the fertility of the high mountain pastures is being transferred down to Hunza's fields.

433 Unfortunately, the human popula-
161 tion has already grown so large that the fields cannot provide sufficient
167 food. Hunzas are moving out of their country in rather large numbers. Although the exact total of annual emigrees is unknown, it is clear that most of them go to the lower villages near Gilgit, where they soon displace their less industrious Sheena predecessors. Hundreds of Hunza's young men
[648] join the Pakistan army. Others take
464 work as servants, where their honesty,
[181] industry, and common sense make them highly valued. The Hunzas realize, as certain Western tourists do not, that their country is a land of little food, and even less opportunity for the future, picturesque as it is.